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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,117	10/21/2003	David J. Vachon	1695.003	5330

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EXAMINER	
HOLT, ANDRIAE M	

ART UNIT	PAPER NUMBER
1616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/691,117	VACHON ET AL.
	Examiner	Art Unit
	ANDRIAE M. HOLT	1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 May 2011*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15-17,30-32 and 34-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15-17, 30-32, and 34-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)	
1) ☒ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/13/2011*.	6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to Applicant's request for reconsideration filed May 13, 2011. Claims 15-17, 30-32, and 34-48 are pending in the application. Claims 15-17, 30-32, and 34-48 will presently be examined to the extent they read on the elected subject matter of record.

Status of the Claims

Rejections not reiterated from the previous Office Action are hereby withdrawn. The following rejections are newly applied. They constitute the complete set of rejections presently being applied to the instant application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 15, 30, 34, 38-42, 45, and 48 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Guillemet et al. (US 5,389,092) in view of Vachon (US 5,861,023) and Berlowitz-Tarrant et al. (US 5,840,387).

Applicant's Invention

Applicant claims a method for controlling biological organisms on a porous surface. Applicant claims the method comprising forming a water-insoluble coating comprising at least one salt of a polysulfonated block copolymer hydrogel on the porous surface in an article selected from the group consisting of a garment, a gas filter, a laboratory work surface, a laboratory wipe, and a wound dressing. Applicant claims the wound dressing comprises a substrate selected from the group consisting of a foam, a woven fabric, a knit fabric, and a nonwoven fabric.

Determination of the scope of the content of the prior art
(MPEP 2141.01)

Guillemet et al. teach a dressing comprising a mixture of block copolymer with a saturated central sequence and plasticizer (Abstract). Guillemet et al. teach that the principal families of dressings are dry gauzes, tulles gras, occlusive films and absorbent occlusive dressings. The primary function of all these dressings is to cover the wound and protect it from the external environment, in particular from mechanical, thermal, chemical and bacterial aggression (col. 1, lines 10-15). Guillemet et al. teach that the dressing with a matrix containing a block copolymer comprises in its matrix 10 to 30 parts by weight of a block copolymer with a saturated central sequence, especially polystyrene/polyethylene-butylene/polystyrene, and 70 to 90 parts by weight of

plasticizer, especially petrolatum (col. 2, lines 28-33). Guillemet et al. teach that preference will advantageously be given to polystyrene/polyethylene-butylene/polystyrene copolymers (abbreviated to S-EB-S), especially S-EB-S in which the ratio number of styrene units/number of ethylene-butylene units is less than 0.5 and preferably of the order of 0.4 (col. 2, lines 51-56). Guillemet et al. teach that an active principle, present in a therapeutically effective amount, can also be added to the mass consisting of the block copolymer with a saturated central sequence, and the plasticizer. Guillemet et al. teach examples of active principles which may be mentioned are steroidal or non-steroidal anti-inflammatories, analgesics, antibiotics, and antibacterial agents (col. 3, lines 24-38).

Ascertainment of the difference between the prior art and the claims (MPEP 2141.02)

Guillemet et al. do not specifically disclose that the block copolymer is a polysulfonated block copolymer. It is for this reason Vachon and Berlowitz-Tarrant et al. are joined as secondary references.

Vachon teaches an implantable lead having a distal portion including a tissue-stimulating electrode having an outer surface and an inner surface, at least a portion of the outer surface of the electrode being adapted to stimulate cardiac tissue. Vachon teaches that at least one of the surfaces of the stimulating electrode includes an overlay of a sulfonated thermoplastic elastomer/rubber for minimizing adhesion and tissue ingrowth while passing sufficient electrical current to stimulate the tissue (col. 2, lines 23-33). Vachon teaches it has been found that sulfonated block copolymers of styrene-

ethylene-butylene-styrene (SEBS) are effective to inhibit the formation of thrombus at the shocking electrode. In addition, when these copolymers absorb body fluids, they swell and infiltrate the interstices of the electrode coils thereby inhibiting tissue ingrowth. Vachon teaches that furthermore, such materials, while nonporous, are conductive and thus do not impede the flow of electrical current at sulfonation levels above at least about 30%, with the optimal level residing between about 40% and about 70% (col. 2, lines 34-44). Vachon teaches that the described materials can be compounded with various therapeutic agents (steroids, proteins, anticoagulants and the like) (col. 5, lines 8-11).

Berlowitz-Tarrant et al. teach that sulfonated multiblock copolymers are useful for providing non-thrombogenic coatings (Abstract). Berlowitz-Tarrant et al. teach that the multiblock copolymer is a sulfonated styrene-ethylene/butylene-styrene triblock copolymer (col. 1, lines 54-56). Berlowitz-Tarrant et al. teach that the term "block copolymer" is known in the art, and refers to a copolymer of two or more monomers in which the polymeric chains contain long stretches of one kind of repeating unit linked covalently to one or more long stretches of repeating units of one or more different polymers. Berlowitz-Tarrant et al. teach that preferred blocks include styrene, ethylene/butylene, isoprene, butadiene, propylene and the like (col. 2, lines 44-66). Berlowitz-Tarrant et al. teach the copolymers can be used as a coating to cover a substrate. Berlowitz-Tarrant et al. teach that exemplary substrates include metals, ceramics and polymers (natural or synthetic). Berlowitz-Tarrant et al. teach that the

sulfonated styrene-ethylene/butylene-styrene copolymer can be effectively grafted to a variety of ceramic and polymer substrates (col. 3, lines 44-49).

Finding of prima facie obviousness
Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Guillemet et al., Vachon, and Berlowitz-Tarrant et al. and try a polysulfonated block copolymer as the block copolymer in the formulation. Guillemet et al. teach a dressing comprising a mixture of block copolymer with a saturated central sequence and plasticizer. Guillemet et al. further teach that preference will advantageously be given to polystyrene/polyethylene-butylene/polystyrene copolymers (abbreviated to S-EB-S). One skilled in the art at the time the invention was made would have been motivated to try a polysulfonated block copolymer because it is known that block copolymers such as a polystyrene/polyethylene-butylene/polystyrene copolymer are used to prepare wound dressings. The skilled artisan would have been motivated to try a polysulfonated block copolymer because Vachon and Berlowitz-Tarrant et al. teach that sulfonated styrene-ethylene/butylene-styrene copolymers are used to safely and effectively coat and cover various substrates because they minimize adhesion and tissue ingrowth and can be effectively grafted to a variety of ceramic and polymer substrates. Therefore, the skilled artisan would have been motivated to try a polysulfonated block copolymer with a reasonable expectation of success because they are as evidenced by the prior art to be used in biological systems.

Therefore, the claimed invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made because every element of the invention has been fairly suggested by the cited reference.

Claims 15-16, 30, 34-43, 45-46 and 48 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Berlowitz-Tarrant et al. (US 5,840,387) in view of Guillemet et al. (US 5,389,092) and Svenningsen et al. (US 2002/0115744).

Applicant's Invention

Applicant claims a method for controlling biological organisms on a porous surface. Applicant claims the method comprising forming a water-insoluble coating comprising forming a water-insoluble coating on the porous surface, wherein the water-insoluble coating comprises at least one salt of a polysulfonated hydrogel that is not chemically cross-linked. Applicant claims the polysulfonated hydrogel comprises a polysulfonated block copolymer hydrogel.

Determination of the scope of the content of the prior art (MPEP 2141.01)

Berlowitz-Tarrant et al. teach that sulfonated multiblock copolymers are useful for providing non-thrombogenic coatings (Abstract). Berlowitz-Tarrant et al. teach that the multiblock copolymer is a sulfonated styrene-ethylene/butylene-styrene triblock copolymer (col. 1, lines 54-56). Berlowitz-Tarrant et al. teach that the term "block copolymer" is known in the art, and refers to a copolymer of two or more monomers in

which the polymeric chains contain long stretches of one kind of repeating unit linked covalently to one or more long stretches of repeating units of one or more different polymers. Berlowitz-Tarrant et al. teach that preferred blocks include styrene, ethylene/butylene, isoprene, butadiene, propylene and the like (col. 2, lines 44-66). Berlowitz-Tarrant et al. teach the copolymers can be used as a coating to cover a substrate. Berlowitz-Tarrant et al. teach that exemplary substrates include metals, ceramics and polymers (natural or synthetic). Berlowitz-Tarrant et al. teach that the sulfonated styrene-ethylene/butylene-styrene copolymer can be effectively grafted to a variety of ceramic and polymer substrates (col. 3, lines 44-49). Berlowitz-Tarrant et al. teach that a preferred copolymer is styrene-ethylene/butylene-styrene. This copolymer can be sulfonated by methods known in the art. Berlowitz-Tarrant et al. teach that a suitable sulfonation method is described in US Patent No. 5,468,574; Ehrenberg et al. Berlowitz-Tarrant et al. teach that this patent teaches the use of sulfur trioxide and triethyl phosphate in dichloroethane/cyclohexane solution for the sulfonation of styrene-ethylenelbutylene-styrene. Sulfonation, according to this method, sulfonates principally the styrene blocks. The copolymer can be sulfonated to a desired extent by controlling the sulfonation conditions; alternatively, the monomer units can be separately sulfonated and then combined with the remaining units and copolymerized. Berlowitz-Tarrant et al. further teach that the skilled artisan will appreciate that the block lengths and other characteristics of the copolymer can be varied by changing the polymerization conditions (col. 3, lines 1-20).

Ascertainment of the difference between the prior art and the claims (MPEP 2141.02)

Berlowitz-Tarrant et al. do not specifically disclose that the polysulfonated hydrogel is not chemically cross-linked or that the porous surface is an article selected from the group consisting of a garment, a gas filter, a laboratory work surface, a laboratory wipe, and a wound dressing. It is for this reason Guillemet et al. and Svenningsen et al. are joined as secondary references.

The teachings of Guillemet et al. with respect to the 35 U.S.C. 103(a) rejection is hereby incorporated and are therefore applied in the instant rejection as discussed above.

Svenningsen et al. teach hot melt adhesive compositions suitable for a variety of applications, especially in nonwoven disposable articles, are prepared by blending various adhesive components with a bacteriostat. The bacteriostat is incorporated into the adhesive compositions in sufficient amounts to inhibit the growth of various microorganisms, particularly bacteria (Abstract). Svenningsen et al. teach that nonwoven fabric is comprised of an interlocking fiber network, and is employed in the construction of disposable goods. Specific applications of nonwovens have included disposable diapers, sanitary napkins, surgical drapes, hospital pads and adult incontinence products (page 1, paragraph 2). Svenningsen et al. teach that there is provided an antimicrobial, sprayable, thermoplastic polymer composition comprising a blend of about 95-99.9% by weight of a thermoplastic polymer (pages 1-2, paragraph 19). Svenningsen et al. teach that preferred thermoplastic polymers for use in the compositions are ethylene-vinyl-acetate (EVA), styrene-isoprene-styreri- e (SIS) block copolymer, styrene-butadiene-styrene (SBS) block copolymer, and styrene-ethylene-butylene-styrene (SEBS) block copolymer (page 2, paragraph 35). Svenningsen et al.

teach that a bacteria growth-inhibiting amount of about 0.01% to about 5% by weight, preferably about 0.1% to about 4% by weight, and most preferably about 0.3% to about 2% by weight, of a bacteriostat is also incorporated into the present adhesive composition (page 5, paragraph 71). Svenningsen et al. teach that the bacteriostat should be effective both against gram positive, as well as, gram negative bacteria (page 5, paragraph 74).

Finding of prima facie obviousness
Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Berlowitz-Tarrant et al., Guillemet et al., and Svenningsen et al. and use a polysulfonated block copolymer that is not chemically cross-linked. Berlowitz-Tarrant et al. teach that the preferred block copolymer is styrene-ethylene/butylene-styrene and that this copolymer can be sulfonated by methods known in the art, including the method disclosed in the Ehrenberg et al. patent. One skilled in the art at the time the invention was made would have been motivated to use the polysulfonated block copolymer that is not chemically cross-linked because Berlowitz-Tarrant et al. do not indicate that the polysulfonated block copolymers are cross-linked and indicate that any method can be used to form the polymers. In addition, the method that Berlowitz-Tarrant et al. specifically reference does not indicate the polysulfonated block copolymers are cross-linked and this is the same method that is referenced in Applicant's specification.

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Berlowitz-Tarrant et al., Guillemet et al., and

Svenningsen et al. and use a polysulfonated block copolymer on a porous surface such as a wound dressing. Berlowitz-Tarrant et al. teach that sulfonated multiblock copolymers are useful for providing non-thrombogenic coatings to various surfaces. One skilled in the art at the time the invention was made would have been motivated to use the polysulfonated block copolymer on a porous surface such as a wound dressing because Guillemet et al. and Svenningsen et al. teach that block copolymers such as polystyrene/polyethylene-butylene/polystyrene copolymers (abbreviated to S-EB-S) are used or coated on various types of dressings and nonwoven materials. As such, the skilled artisan would have been motivated to try the polysulfonated block copolymer with a reasonable expectation of success to coat porous surfaces because as taught by the prior art other forms of block copolymers, including those with the same backbone are used for those purposes to provide protection against bacteria.

Therefore, the claimed invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made because every element of the invention has been fairly suggested by the cited reference.

Claims 15, 31-32, 40, and 44-47 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Berlowitz-Tarrant et al. (US 5,840,387) in view of Svenningsen et al. (US 2002/0115744) and Shalaby (US 6,413,539).

Applicant's Invention

Applicant claims a method for controlling biological organisms on a porous surface. Applicant claims the method comprising forming a water-insoluble coating

comprising at least one salt of a polysulfonated block copolymer hydrogel on the porous surface in an article selected from the group consisting of a garment, a gas filter, a laboratory work surface, a laboratory wipe, and a wound dressing. Applicant claims the coating additionally comprises a tetracycline, wherein the tetracycline is doxycycline.

Determination of the scope of the content of the prior art (MPEP 2141.01)

The teachings of Berlowitz-Tarrant et al. with respect to the 35 U.S.C. 103(a) rejection is hereby incorporated and are therefore applied in the instant rejection as discussed above.

Ascertainment of the difference between the prior art and the claims (MPEP 2141.02)

Berlowitz-Tarrant et al. do not specifically disclose that the coating additionally comprises a tetracycline and that the tetracycline is doxycycline. It is for this reason Svenningsen et al. and Shalaby are joined as secondary references.

The teachings of Svenningsen et al. with respect to the 35 U.S.C. 103(a) rejection is hereby incorporated and are therefore applied in the instant rejection as discussed above.

Shalaby teaches a hydrogel-forming, self-solvating, absorbable polyester copolymer capable of selective, segmental association into a compliant hydrogel mass on contact with an aqueous environment (col. 6, lines 33-37). Shalaby teaches the copolymer comprises a base component, designated "Component A". Shalaby teaches Component A comprises a molecular chain having a hydrophilic block (col. 7, lines 1-25). Shalaby teaches these copolymers are especially useful for localized controlled

delivery of biologically active agents/drugs and protecting or augmenting damaged, compromised, and/or traumatized tissues. Shalaby teaches the applications of the novel copolymers include treatment of periodontal disease, wherein a tetracycline-doxycycline- or chlorhexidine-containing hydrogel-former is injected into the periodontal pocket to form an adhesive gel or semi-solid mass in the pocket for the controlled release of such antimicrobial drugs over a period of 2 to 45 days (col. 9, lines 65-67-col. 10, lines 1-7).

Finding of prima facie obviousness
Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Berlowitz-Tarrant et al., Svenningsen et al. and Shalaby and use a tetracycline in the formulation. Berlowitz-Tarrant et al. teach that sulfonated multiblock copolymers are useful for providing non-thrombogenic coatings. Berlowitz-Tarrant et al. further teach that therapeutic agents are entrapped in the copolymers and that these therapeutic agents can be antibiotics. One skilled in the art at the time the invention was made would have been motivated to use a tetracycline in the formulation because Svenningsen et al. also teach that block copolymers such as polystyrene/polyethylene-butylene/polystyrene copolymers (abbreviated to S-EB-S) are used or coated on various types of dressings and nonwoven materials and that a bacteriostat is added to the block copolymers that are effective against gram positive and gram negative bacteria. The skilled artisan would have been motivated to use a tetracycline with a reasonable expectation of success because Shalaby teaches that a

tetracycline, doxycycline, is used as an active antimicrobial component on hydrogels. As such, the skilled artisan would have been motivated to try the tetracycline in the formulations because it is taught in the prior art that antibiotics and bacteriostat can be added to hydrogel formulations to provide additional antibacterial protection.

Therefore, the claimed invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made because every element of the invention has been fairly suggested by the cited reference.

Claims 15 and 17 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Berlowitz-Tarrant et al. (US 5,840,387) in view of Svenningsen et al. (US 2002/0115744) and Cohen et al. (US 2,676,896).

Applicant's Invention

Applicant claims a method for controlling biological organisms on a porous surface. Applicant claims the method comprising forming a water-insoluble coating comprising at least one salt of a polysulfonated block copolymer hydrogel on the porous surface in an article selected from the group consisting of a garment, a gas filter, a laboratory work surface, a laboratory wipe, and a wound dressing. Applicant claims the polysulfonated block copolymer hydrogel is an ammonium salt.

Determination of the scope of the content of the prior art (MPEP 2141.01)

The teachings of Berlowitz-Tarrant et al. with respect to the 35 U.S.C. 103(a) rejection is hereby incorporated and are therefore applied in the instant rejection as discussed above.

Ascertainment of the difference between the prior art and the claims (MPEP 2141.02)

Berlowitz-Tarrant et al. and Svenningsen et al. do not specifically disclose that the polysulfonated block copolymer hydrogel is an ammonium salt. It is for this reason Cohen is joined as a secondary reference.

The teachings of Svenningsen et al. with respect to the 35 U.S.C. 103(a) rejection is hereby incorporated and are therefore applied in the instant rejection as discussed above.

Cohen teaches that by applying a water-insoluble amine salt of sulfonated polystyrene to a textile that the objective of producing a material which has a soft, anti-static finish, which is characterized by good resistance to washing or laundering or dry cleaning, is met. Cohen teaches that such salt is applied to the textile material in various ways such as by treating the textile material with an aqueous solution of sulfonated polystyrene or a water-soluble salt of sulfonated polystyrene, such as a sodium salt. Cohen teaches that after treating the material with a liquid amine or with a water-soluble salt of an amine, which is capable of reacting with the sulfonated polystyrene or water-soluble salt of the sulfonated polystyrene to form a water-insoluble amine salt of sulfonated polystyrene (col. 1, lines 27-41). Cohen teaches the water-insoluble amine salts of sulfonated polystyrene may be applied to the textile material by coating one or more sides of the textile material with the water-insoluble amine salt of sulfonated

polystyrene (col. 1, lines 25-34). Cohen et al. teach the term "textile material" is intended to include unspun fibers, both natural and synthetic staple fibers, yarns, or continuous filaments and woven and knitted fabrics (col. 2, lines 35-38). Cohen et al. teach the invention is particularly directed to the treatment of woven and knitted fabrics comprising a major portion of yarns of textile materials which readily acquire a static charge and which do not have good draping qualities when such static charge is present, especially in the case of apparel fabrics (col. 2, lines 51-55-col. 3, lines 1-2). Apparel fabrics are garments.

Finding of prima facie obviousness
Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Berlowitz-Tarrant et al., Svenningsen et al. and Cohen and use an ammonium salt of polysulfonated block copolymer. Berlowitz-Tarrant et al. teach that the preferred block copolymer is styrene-ethylene/butylene-styrene and that this copolymer can be sulfonated by methods known in the art, including the method disclosed in the Ehrenberg et al. patent. One skilled in the art at the time the invention was made would have been motivated to use an ammonium salt of the polysulfonated block copolymer because Cohen et al. teach that textiles that are coated with a water-insoluble amine salt of sulfonated polystyrene that are durable. In addition, Cohen et al. teach that by treating a water-soluble salt of sulfonated polystyrene, such as a sodium salt, the water-insoluble amine salts can be formed. As such, it would have been obvious to the skilled artisan to try an amine salt of sulfonated polystyrene or convert a water-soluble salt of a sulfonated polystyrene to an amine salt of a sulfonated

polystyrene in the formulations taught by Berlowitz-Tarrant et al. to produce more durable surfaces and wound dressings.

Therefore, the claimed invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made because every element of the invention has been fairly suggested by the cited reference.

None of the claims are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andriae M. Holt whose telephone number is (571)272-9328. The examiner can normally be reached on 7:00 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richter Johann can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andriae M. Holt,
Patent Examiner
Art Unit 1616

/Johann R. Richter/
Supervisory Patent Examiner, Art Unit 1616